

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

7) 3-177
 107.2
 MONTANA WEATHER AND CROP SUMMARY

October 30, 1964

(6-Months-April through September 1964)

U. S. DEPARTMENT OF AGRICULTURE
 Statistical Reporting Service

U. S. DEPARTMENT OF COMMERCE
 Weather Bureau

TEMPERATURE April temperatures averaged cooler than seasonal in all but the eastern portion. May was warmer than seasonal except for the western portion. July was the only month with temperatures averaging near or warmer than normal all sections. Cooler than seasonal temperatures prevailed over all the State in June, (except slightly warmer north central), August and September. Freezing occurred May 12 at most stations in the eastern and south central portions and in the remainder of the State May 26. Minimums again dropped to 32° or cooler June 1-2 in the eastern half and June 28-29 west of the Divide. Although maximums reached 100° or higher many east of the Divide stations during July and August, there were no prolonged hot "spells". By September 19, nearly all stations in the western two-thirds had observed the first freeze of the fall, but not until September 27 did minimums fall to freezing at most eastern stations. Extreme temperatures ranged from -12° at Lincoln 14 NE April 7 to 107° at Miles City July 21 and at several eastern stations August 18.

PRECIPITATION April-September (inclusive) precipitation was above normal except below at some stations along the Canadian border from Hill County eastward to the Dakota border, and in the western half of the South Central Division. During the growing season, less than usual rain fell in the Northeastern Division in April and August, the Southwestern, Central, South Central, and Southeastern divisions in July, and all but the Western Division in September. Rainy, damp weather the first ten days of May and again the latter part of the month continued until the last week of June. Precipitation for May and June was well above normal at most stations. Moderate to heavy rain and rain showers again spread over Montana the latter half of August and the first two to three days of September. Snow fell at some higher western stations August 19 and again the 28th, leaving snow cover on some higher mountains. After the first week, September was unseasonably dry.

SEVERE STORMS Record breaking rains fell over both east and west slopes of the northern third of the Continental Divide June 7-8. The 14 to 16 inches of precipitation in the storm's centers resulted in heavy flooding on the Sun, Teton, Marias, and Flathead rivers and their tributaries. Thirty-four people lost their lives. Damage to property, crops, highways, railroads, etc. was estimated around \$62,000,000. Snow and wind on May 2-3 in the North Central and Central divisions caused one death, disrupted surface transportation and did considerable damage to power lines. Estimated hail and severe storm damage for the season exceeded \$2,000,000 but this was the least from hail since 1959. Five large hailstorms (two in the northeast portion June 14 and July 4, one in southern Liberty and northern Chouteau counties July 9, one in Custer and Powder River Counties July 19, and one in Valley County August 1) accounted for most of the season's hail damage. Five small tornadoes and six funnel clouds were reported, but they did little damage. Lightning caused one death, four injuries, some livestock losses, and on August 18 set a large number of range fires in Central Montana. One fire near Loring burned over 13,000 acres.

EARLY SEASON MOISTURE ADEQUATE Above normal rainfall in May and June ended a three-year drought in north central Montana. Supplies of soil moisture were generally adequate for plant growth during May and June. However, rapid vegetative growth and warm, dry weather during early summer soon depleted soil moisture, and by mid-July most of the State was dry. This condition prevailed until alleviated by heavy rains in late August. By the middle of September moisture supplies were again short.

(Over)

WHEAT DEVELOPMENT DELAYED Winter wheat remained in the dormant stage until the middle of April, and the moderate degree of winterkill was not fully evident until May. Early growth was slowed by low temperatures, and in north central counties, too much moisture caused leaves and stems to yellow. Development lagged one week to ten days behind earlier years. Damage by hail, insects, and disease was not as extensive as in earlier years but heavy rains interrupted the final stages of harvest. In spite of some losses by shattering winter wheat yielded 29.0 bushels per acre, equal to the highest of record.

Seedbed preparation for spring planted crops was underway in nearly all areas by the end of the second week in April. The start of field work was erratic and somewhat behind last year as a result of blustery weather and wet fields. Planting was nearly complete by June 1. Emergence in some fields that were planted before the heavy rains was poor because of crusted soil, and many stands were reseeded. Spring planted crops made good growth during early summer. Dry weather in July reduced yields and test weight of non-irrigated spring wheat and barley. Harvest of spring grains was prolonged, especially at higher elevations, due to cool, rainy weather during late August and the forepart of September.

GRASS MADE RAPID GROWTH AFTER LATE START Growth of grass was unusually slow last spring. Although the soil moisture situation was good, temperatures were too low for optimum growth. The retarded growing season caused heavy drain on hay and feed supplies, and about one-half of the livestock was still receiving supplemental feed at the end of April. Warm weather, following rains in early June, accelerated vegetative growth on ranges and pastures. Grazing conditions were good during the summer months.

Cutting of the first crop of alfalfa began in mid-June in most sections, and harvest of wild hay was underway by July 1. Haying was interrupted several times by rainy weather but in general progress was satisfactory.

HARVEST SATISFACTORY Although harvesting of grains was delayed by cool, rainy weather during late August and early September, operations were nearly complete by October 1. Harvesting of sugar beets and potatoes was just beginning by that date.

Seeding of winter wheat for harvest in 1965, interrupted by wet weather in late August, was 90 percent complete by October 1. This was slightly ahead of the previous year's pace. Germination was normal and fall growth generally good.

In summary, the 1964 crop season was very good. The forecast of wheat production is the largest since 1958 and a near record crop of hay was harvested. This year's barley crop exceeds 1963 production by 10 percent; production of sugar beets, beans, oats, and corn will be somewhat below 1963.

PRECIPITATION: 6-Month Total, April-September 1964, and Normal

6-Month Precipitation		6-Month Precipitation	
STATION	April-September	STATION	April-September
	1964 Normal		1964 Normal

WESTERN DIVISION

Alberton	10.15		Missoula 2 WW	10.89	7.49
Big Fork 12S	19.39		Missoula WBAS	9.13	7.34
Creston	14.98		Olney 1SE	12.16	
Darby	9.84	7.45	Ovando 1SW	7.98	7.80
Deer Lodge 3W	6.73		Ovando 7WNW	8.02	
Drummond	7.50	7.62*	Paradise	12.91	
East Anaconda	9.45	8.43	Phillipsburg	10.56	9.74
Elliston	10.66		Pleasant Valley	8.01	7.99
Eureka	8.81		Polebridge	11.60	
Fortine 1NNE	11.66	9.19	Polson Airport	11.32	8.53
Hamilton	7.02	6.67	Polson Kerr Dam	11.49	
Haugan	12.40	9.05	St. Ignatius	12.20	9.31
Heron 2 NW	16.56	10.24	St. Regis	11.20	
Hungry Horse Dam	18.72		Seeley Lake	10.87	
Kalispell WBAS	12.05	8.09	Sula	13.09	
Kalispell	9.71		Summit	26.09	
Kila	8.62		Superior	10.75	7.57
Libby 1 NE	6.83	6.70	Swan Lake	17.19	
Libby 32 SSE	12.54		Thompson Falls	12.76	8.18
Lindbergh Lake	13.40		Troy	9.41	
Lolo Hot Springs 2 NE	11.86		Troy 18N	9.07	
Lone Pine 1 WNW	6.87	5.57	Warland	7.16	
			West Glacier	18.65	11.74

SOUTHWESTERN DIVISION

Alder 17S	11.03		Jackson	12.34	
Belgrade FAA AP	10.20	9.23*	Lakeview	12.43	
Boulder St. School	8.69		Lima	9.78	7.78
Bozeman Ag. College	13.74	10.90	Norris 3ENE	11.03	
Bozeman 12NE	18.39		Norris Madison PH	13.96	11.87
Butte FAA AP	9.64	8.33	Pony	10.68	
Dillon FAA AP	9.97	6.95*	Trident	6.53	
Dillon WMCE	13.07	8.12	Twin Bridges	8.46	
Divide 2NW	11.03		Virginia City	14.13	9.53
Ennis	9.44	8.29	West Yellowstone	11.24	9.63
Glen 4N	10.00		Whitehall	8.20	7.52*
Hebgen Dam	16.23	11.31	Wisdom	9.11	

* Estimated normal.

PRECIPITATION: 6-Month Total, April-September 1964, and Normal

STATION	6-Month Precipitation		STATION	6-Month Precipitation	
	April-September			April-September	
	1964	Normal		1964	Normal

NORTH CENTRAL DIVISION

Babb 6NE	19.37	13.53	Havre WBAS	9.85	8.61
Big Sandy	13.30	9.24	Hays	17.87	
Blackleaf	22.05		Illiad	12.57	
Brady Aznoe	12.48		Joplin 1N	10.64	
Browning	19.61	10.17	Loma 1WNW	11.37	
Chester	9.96		Lonesome Lake	11.09	
Chinook	10.82	9.25	Loring 10N	8.66	
Choteau	15.96	9.34	Malta	10.02	8.84
Cleveland 5ENE	14.13		Malta 35S	14.33	
Conrad	13.16	9.49	Phillips 1S	10.48	
Cut Bank FAA AP	11.67	9.12	Rudyard 30N	9.97	
Del Bonita	16.91		Santa Rita 14N	12.54	
Dunkirk 14NNE	8.99	8.88	Shelby AP	13.02	
Fairfield	14.84	9.32	Shonkin 7S	33.25	
Forks 4NNE	9.28		Simpson 6NW	7.44	8.16
Fort Assinniboine	8.96	8.56	Sweetgrass	16.08	
Fort Benton	14.02	10.01	Telegraph Creek	16.13	8.51
Geraldine	15.83		Tiber Dam	10.97	
Gildford	11.74		Turner	12.46	
Goldbutte 7N	14.53		Valier	16.35	10.26
Harlem	8.90	8.95			

CENTRAL DIVISION

Augusta	13.81	10.07	Lewistown FAA AP	18.01	12.02
Austin 1W	9.90		Lincoln RS	13.09	
Barber	13.69**		Martinsdale 3NNW	7.99	10.14*
Canyon Ferry PH	10.54		Melstone	14.58	8.60
Cascade 5S	13.98	10.45	Moccasin Ex. Sta.	15.05	10.64
Cascade 20SSE	13.16		Raynesford 1W	17.42	
Denton	14.12		Roundup	15.29	8.22
Flatwillow 4ENE	15.46	9.53	Roy 8NE	14.50	
Gibson Dam	21.40	12.01	Roy 24NE	13.27	
Grass Range	19.52		Ryegate 18NNW	10.42	
Great Falls WBAS	13.05	9.72	Sun River 5SW	12.52	
Harlowton	10.14		Toston 3SW	7.07	
Helena WBAS	10.96	7.49	Townsend	7.80	
Holter Dam	11.66	9.07	Utica 11WSW	13.21	
Kings Hill	15.91		White Sulphur Sp	10.32	11.19
Lennep 5SW	9.66		Winifred	15.39	9.15

* Estimated normal.

** Incomplete report.

PRECIPITATION: 6-Month Total, April-September 1964, and Normal

6-Month Precipitation		6-Month Precipitation	
STATION	April-September	STATION	April-September
	1964 Normal		1964 Normal

SOUTH CENTRAL DIVISION

Ballantine	16.33	7.99	Hysham 19SSE	13.75	
Belfry 8SSW	5.73		Joliet	14.86	
Big Timber	9.55	10.06	Kirby 1S	15.93	
Billings Water Plant	17.62	9.43	Livingston	8.95	9.09
Billings WBAS	15.39	8.73	Livingston FAA AP	8.34	10.23*
Bridger	12.88		Melville 4W	10.07	
Broadview	13.73		Mystic Lake	14.93	15.25
Columbus	11.58	9.51	Rapelje 4S	10.07	9.25
Crow Agency	16.76	9.32	Red Lodge	18.82	13.39
Custer	14.75		Wilsall	9.82	
Gardiner	7.38		Wilsall 8ENE	13.93	
Hardin	13.84		Wyola	15.43	9.04*
Huntley Exp. Sta.	14.49	7.96	Yellowstone Park NE	12.26	
Hysham	11.53		Yellowtail Dam	21.72	

NORTHEASTERN DIVISION

Bloomfield 6E	10.14		Mosby 18N	13.03	
Bredette	7.22		Nohly 3WNW	10.41	
Brockway	10.58		Opheim 10N	9.92	
Circle	11.46	9.28	Opheim 12SSE	9.62	
Culbertson	9.53	10.26	Poplar	8.85	10.21
Fort Peck PP	11.55		Raymond Border Sta.	11.80	
Frazer	10.73	9.74	Redstone	9.24	
Glasgow WBAS	8.28	9.26	Richey	9.97	
Glendive	11.95	9.91	Savage	10.46	10.82
Haxby 18SW	16.69	9.79	Scobey	8.86	
Hinsdale	9.58		Sidney Exp. Sta.	13.06	10.72*
Jordan	14.17	7.81	Thoeny 3N	8.32	
Lambert	12.18		Vida	13.26	10.81
Lustre 4NNW	9.44	9.45	Westby	9.12	
Medicine Lake 3SE	9.41	10.35	Wolf Point 4ESE	8.12	
Mosby 2ENE	14.11				

SOUTHEASTERN DIVISION

Albion 1N	10.46		Mildred	10.24	9.56
Biddle 8SW	10.27		Miles City	9.66	
Birney 2SE	11.25		Miles City FAA AP	10.49	9.04
Boyes	11.01		Mizpah 4NNW	10.94	
Brandenberg	11.39		Otter 9SSW	14.39	
Broadus	10.39	10.10*	Plevna	12.32	9.70
Carlyle 10W	15.65		Ridgway 1S	10.66	
Colstrip	13.79	10.48	Rock Springs	10.21	
Ekalaka	13.96	10.32	Terry	10.95	
Forsyth 2E	12.13		Terry 25NNW	11.07	
Ingomar 11NE	9.43		Wibaux	14.95	
Lame Deer	14.03				

* Estimated normal.

T. J. Kuzelka, Agr. Statistician in Charge
Montana Crop & Livestock Reporting Service

R. A. Dightman, Weather Bureau
T. S. Aasheim, Extension Service

